

In the Claims

Please cancel claims 1-36 in the application without prejudice and please enter the following new claims 37-48.

37. (New) A method of conditioning air for an enclosure by transferring heat and moisture between a first stream of outside ambient air and a second stream of enclosure return air comprising:
 - disposing a water-conducting membrane between said first and second stream, said water-conducting membrane having at least two opposed surfaces and comprising an at least partially sulfonated random hydrocarbon copolymer; and
 - contacting the first and second gas stream with an opposite surface of said water-conducting membrane, whereby heat and moisture are transferred between the first stream of outside ambient air and the second stream of enclosure return air.
38. (New) The method of claim 37, wherein said water-conducting membrane comprising an at least partially sulfonated random hydrocarbon copolymer comprises at least one arylvinyl monomer.
39. (New) The method of claim 38, wherein said at least one arylvinyl monomer is at least partially sulfonated.
40. (New) The method of claim 37, wherein said water-conducting membrane comprising an at least partially sulfonated random hydrocarbon copolymer comprises at least one olefin monomer.
41. (New) A heat and moisture exchanger core for transferring heat and moisture between a first stream of outside ambient air and a second stream of enclosure return air comprising

a water-conducting membrane disposed between the first stream of outside ambient air and the second stream of enclosure return air, said water-conducting membrane comprising an at least partially sulfonated random hydrocarbon copolymer;

whereby heat and moisture are transferred between the first stream of outside ambient air and the second stream of enclosure return air.

42. (New) The heat and moisture exchanger core of claim 41, wherein said water-conducting membrane comprising an at least partially sulfonated random hydrocarbon copolymer comprises at least one arylvinyl monomer.
43. (New) The heat and moisture exchanger core of claim 42, wherein said at least one arylvinyl monomer is at least partially sulfonated.
44. (New) The heat and moisture exchanger core of claim 41, wherein said water-conducting membrane comprising an at least partially sulfonated random hydrocarbon copolymer comprises at least one olefin monomer.
45. (New) An apparatus for conditioning air for an enclosure comprising a heat and moisture exchanger core for transferring heat and moisture between a first stream of outside ambient air and a second stream of enclosure return air, said heat and moisture exchanger core comprising a water-conducting membrane disposed between a first stream of outside ambient air and a second stream of enclosure return air, said water-conducting membrane comprising an at least partially sulfonated random hydrocarbon copolymer;
whereby heat and moisture are transferred between the first stream of outside ambient air and the second stream of enclosure return air.

46. (New) The apparatus for conditioning air for an enclosure comprising a heat and moisture exchanger core of claim 45, wherein said water-conducting membrane comprising an at least partially sulfonated random hydrocarbon copolymer comprises at least one arylvinyl monomer.
47. (New) The apparatus for conditioning air for an enclosure comprising a heat and moisture exchanger core of claim 46, wherein said at least one arylvinyl monomer is at least partially sulfonated.
48. (New) The apparatus for conditioning air for an enclosure comprising a heat and moisture exchanger core of claim 45, wherein said water-conducting membrane comprising an at least partially sulfonated random hydrocarbon copolymer comprises at least one olefin monomer.